

ABSTRACT OF THE DISCLOSURE

The present invention provides an oxide film etching method performed by using an etching apparatus in which an oxide film formed on a target object to be processed is etched by utilizing a plasma generated within the process chamber by application of a high frequency power. The etching gas introduced into the process chamber in the etching step contains a C_4F_6 gas and an O_2 gas, and the ratio C_4F_6/O_2 of the C_4F_6 gas to the O_2 gas falls within a range of 0.7 and 1.5 so as to increase the etching selectivity of the oxide film relative to a resist film.